

REMARKS

Applicants appreciate and thank the Examiner for not requiring a resubmission of the claims merely for the use of the wrong status identifier.

Claims 1 and 10 were objected to because they did not specify the percentages were on a weight basis. This has been corrected above. Also, the Examiner's interpretation of claim 5 was correct and a formal correction has been made. In light of these amendments, it is respectfully submitted that the claim objections can be withdrawn.

Applicants appreciate the Examiner's indication that claims 3 and 17-22 were allowable in independent form. Claims 3 and 17 have been placed in this form and claims 18-22 are dependent on claim 17. Accordingly these claims are now in condition to be allowed.

All of the claims under rejection relate to a composition which is an aqueous, energy curable, homogeneous solution comprising the neutralization product of an ethylenically unsaturated acidic resin and an ethylenically unsaturated amine, in water, the combination being such that a stereo-cross-linked ionomer forms upon curing with an actinic radiation source offering an increased cross-linked density to the composition. As pointed out in specification paragraph [0007], the present invention shows how in-situ photopolymerization can be used to generate the opposing charge

type of polymer from blends that have utility in the manufacture of coated and printed materials, forming random, largely amorphous, three dimensional networks of opposing charge polymers with control over the rigidity of the cross linking. Cure can occur in the presence of water and the dissolved water can be allowed to concurrently dry without application of additional energy to give cured structures that are surprisingly not sensitive to water. This is a particular advantage of the invention. The references upon which the rejections are based do not teach or suggest the present invention.

The rejection of claims 10, 13 and 16 under 35 U.S.C. § 103 over Rooney is respectfully traversed.

The Rooney patent, cited in the instant application, teaches an aqueous polymer dispersion containing a polymer substantially free of cationic polymerizable groups and a cationic photoinitiator in which the polymer is capable of being precipitated by an acid or base generating photoinitiator upon exposure to radiation. The compositions of the present invention are solutions whereas the Rooney compositions are dispersions and not solutions. While it is true that some of the "objects" paragraphs refer to a "dispersion or solution", the remainder of the disclosure always refers to the composition as a dispersion. It is therefore respectfully submitted that one skilled in the art would recognize the reference to "solution" in those

paragraphs was an obvious error, particularly in view of the reference to "these polymer dispersions" at column 2, lines 35 and 38. Nothing in Rooney suggests converting a dispersion into a solution and therefore the rejection under Section 103 is not tenable.

The Office Action also acknowledges the reference does not teach the "specific amount of greater than 10% and less than 30% water". To obviate this deficiency, the Office Action asserts that Rooney "does not contain negative teachings pertaining to water amounts less than 30%" so that the skilled person could try any amount of water includes amounts less than 30%. Applicants respectfully submit this position is not well taken because (a) it relies on silence in the reference, which is improper, (b) it relies on an obvious-to-try approach which is also improper under Section 103, (*In re Newell*, 13 USPQ2d 1248, 1250 (Fed. Cir. 1989); *In re Burt*, 148 USPQ 548, 553 (CCPA 1966))and (c) the fair reading of the reference to water in the patent is in respect to a dispersion and not a solution.

It is respectfully submitted that these claims are patentable over Rooney.

The rejection of claims 1, 6-8, 11 and 14 under 35 U.S.C. § 103 over Lundy is respectfully traversed.

The Lundy patent relates to an aqueous composition which is an "aqueous emulsion" (column 2, line 4). There is no teaching or suggestion of a solution, nor is there any motivation to convert the reference's emulsion to a solution. Beyond that fatal deficiency, the Office Action acknowledges the disclosure of water contents greater than 30% and seeks to eliminate this deficiency by asserting, once again, that it "does not contain negative teachings pertaining to water amounts less than 30%" so that the skilled person could try any amount of water includes amounts less than 30%. In response, applicants respectfully submit this position is not well taken because (a) it relies on silence in the reference, which is improper, (b) it relies on an obvious-to-try approach which is also improper under Section 103, and (c) all reference to water in the patent concerns an emulsion and not a solution.

It is respectfully submitted that these claims are patentable over Rooney.

The rejection of claims 1, 2, 5-8, 11 and 14 under 35 U.S.C. § 103 over Hagiwara is respectfully traversed.

The Hagiwara reference teaches an aqueous composition in which the amount of water is 30% or more based on the total weight of the composition. See page 8, last line to page 9, line 3. The Office Action once again relies on the assertion that the reference "does not contain negative teachings pertaining to water amounts less than 30%", which, as point out above is an improper reliance on silence. Moreover, the working

examples of the reference use about 36-76% water in the process of making a composition (assuming no reactant is lost during the reactions described). Where, as here, a reference describes the outer limits of the amount of a material and indicates a preference for amounts within those limits, use of amounts outside those limits is not obvious. *In re Sebek*, 175 USPQ 93 (CCPA 1972).

Still further, Hagiwara teaches that a composition which is dried before curing. See page 2, lines 10-11, page 7, lines 14-18, and the examples. In contrast, the solution of the present invention can be cured without driving off the water by drying. That characteristic is surprising and unexpected, and makes the composition unobvious. This feature of the invention was pointed out in the last response and the current Office Action does not take any issue with this surprising and unexpected result or that it renders the instant claims patentable.

In light of all of the foregoing considerations, withdrawal of all rejections and allowance of this applications is respectfully requested.

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Respectfully submitted,

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